

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: HALO COMMERCIAL

Report Number: P580487

Luminaire Tested: **HC435D010-HM43040927-41WWW**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580487
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-16)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC435D010-HM43040927-41WWW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2849.4 lumens
Efficiency: N/A
Efficacy: 84.6 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.03 / 1.1
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

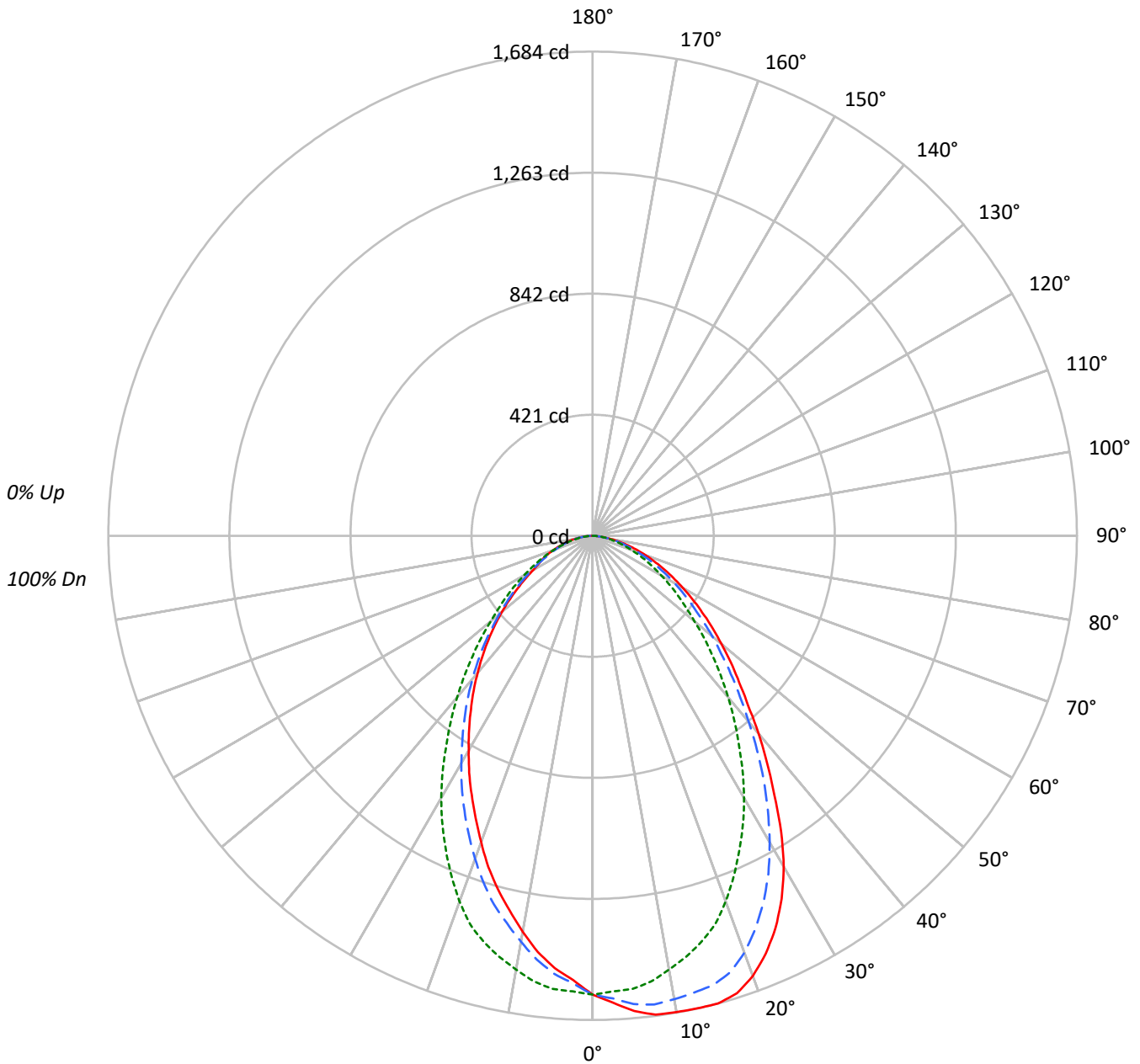
Input Watts (W): 33.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	111	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87																			
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76																			
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66																			
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58																			
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52																			
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47																			
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42																			
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38																			
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35																			
10	59	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	196810	196810	196810
5°	205474	195940	186877
10°	210668	191856	175160
15°	215029	186731	162520
20°	213878	177650	148824
25°	204894	164282	135403
30°	189286	149990	122730
35°	165921	133411	111081
40°	144480	117880	100039
45°	125734	102813	89382
50°	112026	88596	78868
55°	100126	77911	68213
60°	89376	68062	58811
65°	79444	59715	55862
70°	69711	51427	52112
75°	59047	43797	48324
80°	45318	37363	43969
85°	26606	29295	37221



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.6	5.2
10°-20°	412.6	14.5
20°-30°	563.6	19.8
30°-40°	566.0	19.9
40°-50°	468.2	16.4
50°-60°	339.3	11.9
60°-70°	214.9	7.5
70°-80°	108.6	3.8
80°-90°	26.6	0.9
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1125.8	39.5
0°-40°	1691.7	59.4
0°-60°	2499.2	87.7
0°-90°	2849.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2849.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1596	1596	1596	1596	1596	
5°	1660	1635	1582	1530	1509	159
15°	1684	1618	1462	1327	1273	474
25°	1506	1406	1207	1055	995	688
35°	1102	1036	886	777	738	691
45°	721	680	589	531	512	561
55°	466	424	362	330	317	419
65°	272	242	205	184	191	271
75°	124	107	92	96	101	132
85°	19	19	21	24	26	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1595.6	1595.6	1595.6	1595.6	1595.6	1595.6	1595.6	1595.6	1595.6
2.5°	1625.6	1620.0	1610.6	1599.3	1586.2	1571.2	1558.1	1550.6	1546.8
5°	1659.5	1651.9	1635.0	1610.6	1582.5	1554.3	1529.9	1514.9	1509.3
7.5°	1680.0	1668.8	1644.4	1606.9	1563.7	1522.3	1486.7	1466.0	1460.4
10°	1682.0	1668.8	1636.9	1586.2	1531.8	1477.4	1434.1	1404.1	1398.5
12.5°	1683.9	1666.9	1627.6	1567.4	1499.9	1432.3	1379.7	1344.1	1334.6
15°	1683.9	1666.9	1618.1	1546.8	1462.3	1385.3	1327.2	1285.9	1272.7
17.5°	1668.8	1650.0	1591.8	1509.3	1417.3	1330.9	1263.4	1220.2	1207.1
20°	1629.4	1608.8	1543.0	1452.9	1353.4	1263.4	1195.7	1150.8	1133.8
22.5°	1573.0	1548.6	1479.2	1381.6	1282.1	1190.1	1124.4	1077.5	1062.5
25°	1505.5	1481.1	1406.0	1310.2	1207.1	1120.6	1055.0	1011.8	994.9
27.5°	1422.9	1396.6	1323.4	1227.6	1132.0	1045.5	985.5	946.1	929.2
30°	1329.0	1300.9	1231.5	1139.4	1053.1	970.5	912.4	880.4	861.7
32.5°	1220.2	1195.7	1133.8	1051.3	970.5	891.7	842.9	814.7	799.7
35°	1101.9	1088.8	1036.2	964.8	886.0	820.3	777.1	750.8	737.7
37.5°	996.8	983.6	938.5	878.5	809.1	749.0	713.3	690.8	679.6
40°	897.3	886.0	842.9	792.2	732.1	679.6	649.6	632.6	621.3
42.5°	799.7	794.0	758.4	711.5	658.9	613.8	589.4	576.3	566.9
45°	720.8	713.3	679.6	634.5	589.4	551.9	531.2	521.9	512.4
47.5°	651.4	642.0	606.3	566.9	525.6	491.9	473.1	463.6	459.9
50°	583.8	574.4	542.6	503.1	461.7	437.3	422.4	413.0	411.0
52.5°	523.8	514.3	478.7	441.2	409.2	388.6	375.4	366.1	362.3
55°	465.6	454.3	424.2	388.6	362.3	343.5	330.3	321.0	317.2
57.5°	413.0	401.7	375.4	341.7	317.2	300.3	289.1	279.7	275.9
60°	362.3	352.9	328.5	296.6	275.9	260.9	249.6	242.1	238.4
62.5°	315.4	307.9	283.5	255.3	238.4	225.2	215.9	208.4	212.1
65°	272.2	264.7	242.1	217.7	204.6	191.4	184.0	184.0	191.4
67.5°	230.9	223.3	204.6	184.0	172.6	163.3	157.7	163.3	168.9
70°	193.3	185.8	168.9	152.1	142.6	135.1	135.1	140.8	144.5
72.5°	157.7	150.2	137.0	123.9	116.3	110.7	116.3	120.2	123.9
75°	123.9	118.2	107.0	97.6	91.9	90.1	95.8	99.5	101.4
77.5°	91.9	88.2	80.7	73.2	69.5	71.4	77.0	78.8	80.7
80°	63.8	61.9	56.3	52.6	52.6	54.4	58.2	60.0	61.9
82.5°	39.5	39.5	35.6	33.8	35.6	39.5	41.3	43.2	43.2
85°	18.8	20.7	18.8	18.8	20.7	24.4	24.4	26.3	26.3
87.5°	5.6	5.6	7.5	7.5	9.4	9.4	9.4	9.4	11.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)